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Via First-Class Mail and Electronic Mail

February 27, 2020

Governor Thomas Wolf
Office of the Governor
508 Main Capitol Building
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Re: Recommendations for a Final Consent Decree to Reduce Discharges of Untreated Sewage from the City of Harrisburg's Wastewater System

Dear Governor Wolf and the Pennsylvania Department of Environmental Protection:

The Environmental Integrity Project ("EIP") and the Lower Susquehanna Riverkeeper Association ("LSRA") are writing in anticipation of our agreed upcoming meeting with the Pennsylvania Department of Environmental Protection ("DEP") in March 2020 to discuss measures in an updated consent decree with the City of Harrisburg that are critical to achieving compliance and ensuring continued compliance with Pennsylvania's Clean Streams Law and the Clean Water Act. The discharge of untreated sewage from our Commonwealth's capital city into the Susquehanna River and Paxton Creek must be significantly reduced. The current consent decree does not achieve compliance with either state or federal law and we feel strongly that too much time has elapsed without addressing and imposing the actions necessary to significantly reduce if not eliminate untreated sewage discharges to the capital's waterways.

Following the conversation EIP's senior attorney Lisa Hallowell had with DEP, this letter summarizes measures contained in other consent decrees that have proven to be effective at reducing and eliminating discharges of untreated sewage. We urge you to consider these recommendations when revising and updating the partial consent decree entered in 2015[1] ("2015

[1] United States v. Capital Region Water, Civil Action No. 1:15-cv-00291-WWC, Partial Consent Decree (M.D. Pa., Feb. 10, 2015), https://www.epa.gov/sites/production/files/2015-02/documents/cityofharrisburg-cd.pdf [hereinafter 2015 Partial Consent Decree].

Partial Consent Decree"). To start the conversation, EIP and LSRA propose that the final Consent Decree must include:

- A variety of possible infrastructure upgrades, including upgrades to increase wastewater treatment system capacity to treat rather than discharge waste, or upgrades to the system to separately pipe and store wastewater and stormwater to reduce reliance upon or discharges from CSOs;

- Limits on the number, frequency, and/or volumes of sanitary overflows;

- Requiring enforceable deadlines for control measures that are contained not just in the Long-Term Control Plan ("LTCP") but in the body of the consent decree itself; and

- Requiring water quality monitoring to verify that the investments made by the Harrisburg region actually reduce the amount of sewage flowing into the Susquehanna River and improve fecal bacteria levels in the parts of the river directly downstream from Harrisburg's outfalls.

The 2015 Partial Consent Decree, which fails to require the infrastructure changes or impose deadlines needed to end or significantly reduce untreated sewage discharges, has been in place for more than 5 years—the length of an entire permit cycle under the Clean Water Act. Continued reliance on a partial consent decree that sets no deadlines for ending sewage releases continues to put public health at risk and erode local water quality and also undermines the Chesapeake Bay cleanup. Consequently, DEP must start the process of redrafting a final consent decree to incorporate the changes proposed below and other key changes immediately, and the improved consent decree must be finalized as soon as possible—within this calendar year—to minimize risks to public health and the environment.

I. Background/Scope of the Problem

As you know, the 2015 Partial Consent Decree entered into by DEP, the U.S. Environmental Protection Agency ("EPA"), the Capitol Region Water Sewer System ("CRW"), and the City of Harrisburg, Pennsylvania ("the City" or "Harrisburg"), was intended as a stop-gap, intermediate measure.[2] The 2015 Partial Consent Decree was entered in response to DEP and EPA filing a Complaint in federal court for alleged violations of the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.* ("CWA"), and terms of the National Pollutant Discharge Elimination System ("NPDES") permit, No. PA0027179, issued to CRW "relating to the municipal wastewater treatment plant and the conveyance system owned by CRW and formerly operated by the City, and the collection system formerly owned and operated by the City," and also for alleged violations of the CWA and general NPDES permit No. PAG-13, coverage No. PAG-133686 ("MS4 General Permit"), relating to the municipal separate storm water system.

CRW operates the publicly owned treatment works ("POTW") for the City of Harrisburg, which includes a treatment plant called the CRW Advanced Wastewater Treatment Facility ("AWTF") and a "conveyance system" that includes pumps and other systems to convey

[2] *Id.*

wastewater to the AWTF from the "collection system." The collection system, owned by the City, includes the combined sewer systems ("CSS") that receive both wastewater and storm water as well as a separate storm water system.[3] Discharges from the ATWF, conveyance system, and CSS are subject to NPDES Permit No. PA0027197, issued by DEP to CRW's predecessor (the Harrisburg Authority) in 2009,[4] while stormwater discharges from the municipal separate storm water system, owned by the City, are covered by the MS4 General Permit. The CSS includes 59 combined sewer overflow ("CSO") regulators, which are located where CSSs are connected to interceptor sewers, and which control how much flow is directed to the AWTF and how much is discharged to the receiving water.[5]

Paxton Creek is impaired for its designated use of aquatic life based on low levels of dissolved oxygen ("DO") due to high biological oxygen demand ("BOD") caused by CSOs.[6] It is also impaired for the designated use of aquatic life due to siltation/total suspended solids, flow variability, and habitat alteration due to urban/stream sewers that may be related to CSOs.[7] It is also impaired for its designated use of recreation due to pathogens from an unknown source that may be related to CSOs.[8]

EPA and DEP's Complaint identified many violations of the CWA and the NPDES Permit requirements from the CSS and the MS4 systems, including: dry weather combined sewer overflows ("CSOs"); failure to implement the Nine Minimum Controls in the CSS; failure to implement the Minimum Control Measures in the MS4; exceedances of effluent limitations at the AWTF; separate sanitary sewer overflows from the separate portions of the collection system; and failure to implement the schedule for Biological Nutrient Removal in the NPDES permit, among others. The agencies also found CRW's LTCP to be inadequate to comply with EPA's 1994 CSO Policy that was adopted into the Clean Water Act.[9]

The 2015 Partial Consent Decree clearly states that it does not resolve the violations alleged by DEP and EPA.[10] The failure of the 2015 Partial Consent Decree to curb discharges of sewage from Harrisburg's waste water system is evidenced by the fact that CRW admitted that

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[3] 2015 Partial Consent Decree, at 1–2.

[4] The fact that this NPDES permit expired in 2014 and has not been renewed, nor has a draft permit even been released for public comment, means that none of the requirements from the 2015 Partial Consent Decree have been incorporated into the NPDES permit. A new permit must be drafted and finalized as quickly as possible and it must include more stringent requirements as well as strict deadlines and schedules for compliance to bring the discharges into compliance with the Clean Water Act.

[5] Capital Region Water, Combined Sewer System Characterization Report v2.0, at 3-7 (Feb. 2018), https://capitalregionwater.com/wp-content/uploads/2018/01/CSS-Characterization-Report_v.2.0-FINAL-FOR-WEBSITE.pdf.

[6] *Id.* at 4-3, tbl. 4-1.

[7] *Id.*

[8] *Id.*

[9] *See* 33 U.S.C. § 1342(q).

[10] *See, e.g.,* 2015 Partial Consent Decree, at 4 ("this Consent Decree is a partial consent decree that does not resolve any claims the Plaintiffs have for injunctive relief for CRW's alleged failure to implement an LTCP meeting the requirements of the CSO Policy and CWA or civil penalties for CRW's violations of the Clean Water Act or Clean Streams Law as alleged in the Complaint, and that this Consent Decree does not resolve any claims Plaintiffs may have for penalties or injunctive relief for violations not alleged in the Complaint filed simultaneously with this Consent Decree, and that the Parties reserve all claims and defenses that they may have concerning all these matters").

the amount of stormwater mixed with raw sewage discharged from Harrisburg and the six surrounding suburbs served by CRW averages about 789 million gallons per year.[11] And, EIP's August 2019 report, entitled "Sewage Overflows in Pennsylvania's Capital,"[12] reveals that CRW reported that that number increased to 899 million in 2017 and then ballooned to 1.4 billion in 2018, a wet weather year.[13] This raw sewage contains viruses, bacteria, worms, and protozoa and can cause stomach flu, respiratory infections, and potentially life-threatening illnesses in humans when released without being treated, in addition to high levels of nitrogen and phosphorus that threaten aquatic life.[14]

In fact, EIP and LSRA conducted sampling in the summer of 2019 and found *E coli* bacteria levels along the city's waterfront averaging almost three times higher than would be safe for swimming or water-contact recreation.[15] Of the 60 water samples analyzed from June 15 to July 31, 2019, almost half (29) violated health standards. Seven samples measured *E coli* at more than 10 times safe levels, including on City Island Park beach, and along the riverwalk just downstream from outfalls leading from the Governor's Residence and the Capitol Office Complex.[16]

We have initiated a review of consent decrees for neighboring cities, which confirm that it is possible for Harrisburg's sewer system to curb and eventually eliminate discharges of untreated sewage into Pennsylvania's waterways. The 2015 Partial Consent Decree, which falls far short of achieving the pollution reduction measures achieved in consent decrees for other local water authorities, must be revised immediately and must incorporate measures actually designed to dramatically reduce this serious public health and environmental problem.

The 2015 Partial Consent Decree is notably different from other neighboring consent decrees in that it fails to impose any penalty against CRW or the City as a result of their violations of the federal CWA or their discharge permits. In addition, the control measures contained in the 2015 Partial Consent Decree are woefully inadequate to protect public health when compared with other consent decrees, as the 2015 Partial Consent Decree:

1) Fails to require Defendants to cease illegal sewage releases into the Susquehanna River and Paxton Creek either immediately or according to any mandatory deadline or schedule;
2) Fails to require the infrastructure upgrades, including the creation of storage capacity, needed to meaningfully reduce CSO discharges;

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[11] EIP, "Sewage Overflows in Pennsylvania's Capital" 2 & n.8–9 (Aug. 22, 2019), https://environmentalintegrity.org/wp-content/uploads/2019/08/PA-Sewage-Report-Final.pdf.
[12] *Id.*
[13] *Id.* at 1 (citing Capital Region Water, "Semiannual Report on Consent Decree Implementation, July 1, 2018 to Dec. 31, 2018" (released Mar. 2019), https://capitalregionwater.com/wp-content/uploads/2019/04/CRWCh94-SemiAnn-Rpt-2018.pdf).
[14] *Id.* (citing EPA, Fact Sheet: "Why Control Sanitary Sewer Overflows?" (accessed Aug. 15, 2019), https://www.epa.gov/sites/production/files/2015-10/documents/sso_casestudy_control.pdf).
[15] *Id.* at 1.
[16] *Id.*

3) Contemplates heavy reliance on more affordable but less effective green infrastructure measures to mitigate pollution impacts in lieu of requiring CRW to make the structural improvements that would resolve and prevent future violations; and
4) Fails to require water quality monitoring as a measuring stick of progress.[17]

In short, the 2015 Partial Consent Decree does not and cannot, despite incorporating the expenditure of significant funding, provide a long-term solution that will actually keep raw sewage out of the waterways in our Commonwealth's capital.

As a result of failure of the 2015 Partial Consent Decree to require CRW to modernize its infrastructure or impose hard deadlines for such improvements, CRW's LTCP—despite costing Harrisburg ratepayers $315 million over the course of 20 years—does *not* require significant system upgrades. The plan will essentially only provide for maintenance and minor improvements to allow continued use of existing facilities and continued discharges of raw sewage, in perpetuity. This represents a short-term, unsustainable fix, and an expensive and ineffective one at that. The plan, if successful, would reduce combined sewer discharges by about 500 million gallons per year,[18] or about 60%, from a current average of 789 million gallons per year (according to CRW prior to including the increased 2018 discharge numbers) to 332 million gallons per year.[19] This is a paltry reduction based on the current average, and is especially insufficient given that climate change will likely increase the frequency and intensity of storms in the next 20 years, so the total reduction will likely be much lower than 60%. CRW admits that the majority of the $315 million would be going to simply make repairs to the existing, failing infrastructure to address areas of "deferred maintenance" and "preserve system reliability," with the remainder going toward local, neighborhood, and green infrastructure projects.[20] Covering a leaky bucket with Band-aids will only hold so long. It is also a waste of Band-aids.

Due to lax requirements in the 2015 Partial Consent Decree and based heavily upon CRW's own financial capability assessment, which concluded that it would otherwise constitute a "high financial burden" under federal guidelines for Harrisburg to expend additional funds,[21]

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[17] Is it worth noting that the 2015 Partial Consent Decree requires CRW to report CSOs, but CRW has not been reporting them consistently. It is critical that the public be informed of CSOs as the consent decree is being fulfilled and that the final CD requires such reporting, and that the DEP actively and stringently enforces noncompliance with CSO reporting requirements.

[18] *Id.* at ES-4.

[19] *Id.*; EIP, "Sewage Overflows in Pennsylvania's Capital" 3 (Aug. 22, 2019), https://environmentalintegrity.org/wp-content/uploads/2019/08/PA-Sewage-Report-Final.pdf.

[20] Capital Region Water, City Beautiful H2O, Civil Action No. 1:15-cv-00291-WWC: Long Term Control Plan, at ES-3 (Mar. 29, 2018) ("A 20-year financial analysis concluded that a total of approximately $315 million in capital projects ($253 million in 2017 dollars) could be funded by Capital Region Water over a 20-year period ($225 million in the first 10 years and $90 million in the next) while keeping the affordability threshold at or just below the high financial burden threshold. A portion of this total 20-year investment will be needed to continue to address decades of deferred maintenance (prior to CRW ownership and operation) and to preserve system reliability ($214 million), whereas the remaining portion of this capital funding capacity ($101 million) will be available for local, neighborhood, green stormwater infrastructure (GSI) projects.").

[21] Capital Region Water, City Beautiful H2O, Civil Action No. 1:15-cv-00291-WWC: Long Term Control Plan, at ES- 2 (Mar. 29, 2018) ("Capital Region Water has already determined that approximately $113 million (escalated), or $102 million (in 2017 dollars) is required to fund high-priority projects to rehabilitate the Advanced Wastewater Treatment Facility and the conveyance system. This leaves only approximately $112 million (escalated), or $83

this long-term plan will not produce legally mandated results. Neighboring cities have had consent decrees that not only levied penalties against the public authority for Clean Water Act violations – which Harrisburg's lacks – but required the revamping of those cities' antiquated sewer systems to resolve CSO discharges to a much greater extent.

II. Financial Considerations

Of course, funding is a critical component of an improved consent decree and LTCP for Harrisburg. Harrisburg's financial analysis should consider whether more significant pollution reductions could be achieved with smaller or phased construction projects. Cities like Portland, Oregon have been able to achieve dramatic CSO reductions without sacrificing river health by evaluating costs based on whether additional incremental pollution reductions would significantly improve river health. Portland's financial analyses projected that eliminating 100% of overflows would have doubled the project cost without significantly improving river health, but found that spending half that amount resulted in 94% and 99% reductions in CSOs in the two target waterways without sacrificing river health. Thus, the city, in collaboration with the state and EPA, approved a much lower-cost plan with major environmental benefits.[22] Harrisburg's financial analysis should, likewise, consider how much it would cost to achieve various levels of pollution reductions and consider whether re-allocating funding slated to maintain or repair existing CSOs could achieve greater pollution reductions if slated for construction projects geared toward eliminating the need for the CSO in the first place.[23]

In addition to considering a variety of pollution reduction options and considering whether to re-apportion some of the $315 million for the first phases of critical upgrades, the Governor's office should also work to secure funding from the State to make the changes in infrastructure necessary to modernize Harrisburg's outdated wastewater infrastructure.

Governor Wolf just recently announced a $119 million investment in water infrastructure projects in 18 Pennsylvania cities that included wastewater infrastructure, but Harrisburg was conspicuously absent from this list.[24] Harrisburg is the state capital and much of the sewage from the city comes from state buildings and operations. Given this, the financial capability assessment needs to look beyond the city and consider the obligation the state has to support its capital, and the state needs to contribute significantly to the modernization of Harrisburg's sewage system. It was only because of special funding from the Virginia General Assembly that Alexandria, VA, for example, recently launched a major construction effort to fix its CSO

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million (in 2017 dollars) of additional capital funding capacity over the next 10 years before the level of high financial burden is reached according to Federal guidelines. This is why Capital Region Water is pursuing the maximum amount of schedule relief possible from the US-EPA for Program Plan implementation and why an implementation plan of longer than 20-years is justified.").

[22] City of Portland, Oregon, Combined Sewer Overflows (CSOs), https://www.portlandoregon.gov/bes/article/398740 (last accessed Feb. 10. 2020).

[23] DEP should consider whether an independent, third-party should be required to provide a financial capability analysis.

[24] Press Release, "Governor Tom Wolf, Governor Wolf Announces $119 Million Investment in Water Infrastructure Projects in 15 Counties" (Jan. 29, 2020), https://www.governor.pa.gov/newsroom/governor-wolf-announces-119-million-investment-in-water-infrastructure-projects-in-15-counties/.

overflow problem into the Potomac River.[25] A small city with limited ability to pay like Harrisburg should not be expected to cover the entire cost of upgrading its system to reduce CSO overflows, especially since it is a capital city dominated by State buildings. The state General Assembly should pitch in to help the state capital and—at the very least—upgrade the pipes leading directly from the State Government Complex and the Governor's Residence into the Susquehanna River. That seems like a state responsibility.

III. Proposed Terms for a Final Consent Decree to Address Harrisburg's Sewage Discharge Problems

CRW's Consent Decree must be swiftly revamped and finalized to reflect best practices, ensure the protection of public health, and deliver a meaningful reduction in discharges of untreated sewage into the Susquehanna River, the largest tributary to the Chesapeake Bay. Thankfully, neighboring cities have undertaken or continue to undertake similar overhauls to their aging sanitary and storm sewer systems and we can look to those consent decree requirements that have been successful, or are proving successful, and incorporate them into a final consent decree for Harrisburg.

The consent decrees reviewed by EIP with this goal in mind include the city of Williamsport[26] and the city of Scranton,[27] which are also in the Middle District of Pennsylvania, and the city of Lancaster.[28] We also reviewed the consent decree for Washington, DC.[29]

a. Immediate Action to Address Dry Weather Overflows

While the 2015 Partial Consent Decree prohibits dry weather overflows and requires immediate notification when they occur,[30] it falls short of other consent decrees because it fails to require immediate remedial action to address such overflows. For example, the consent

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[25] City of Alexandria, VA, VPDES Permit No. VA0087068 Combined Sewer System Annual Report No. 23 for 2017, at 12-10 (Mar. 2018), https://www.alexandriava.gov/uploadedFiles/tes/oeq/info/CSS%20Annual%20Report%20No.%2023%20for%202017.pdf ("This project includes $1,000,000 in funding for FY 2018 to ramp up the City's efforts for planning and implementing work at the four CSO's. The City is assuming both interjurisdictional contributions ($47.5 million) from Fairfax County and State aid ($45 million). The cities of Richmond and Lynchburg received significant state aid to help offset a portion of their CSO project costs.").

[26] United States v. Williamsport Sanitary Authority, Civil Action No., Consent Decree (M.D. Pa, June 22, 2010), https://www.epa.gov/sites/production/files/2013-09/documents/williamsport-cd.pdf [hereinafter Williamsport CD] (addressing violations from the Central and West Plants, NPDES Permit Nos. PA0027057 and PA0027049).

[27] United States v. City of Scranton, Civil Action No. 3:CV-09-1873, Consent Decree (M.D. Pa, Dec. 13, 2012), https://www.epa.gov/sites/production/files/documents/scantonsewer-cd.pdf [hereinafter Scranton CD] *as amended by* United States v. City of Scranton, Civil Action No. 3:CV-09-1873, Amended Consent Decree (Oct. 27, 2016), https://elr.info/sites/default/files/doj-consent-decrees/united_states_v._sewer_authority_of_scranton.pdf [hereinafter Scranton Amended CD].

[28] United States v. City of Lancaster, Civil Action No. 17-cv-5684, Consent Decree (E.D. Pa, Dec. 20, 2017), https://www.epa.gov/sites/production/files/2017-12/documents/cityoflancasterpa.pdf [hereinafter Lancaster CD].

[29] Anacostia Watershed Society v. District of Columbia Water and Sewer Authority, Civil Action No. Civil Action No. 1:OOCV00183TFH, First Amendment to Consent Decree (D.D.C., May 19, 2015), https://www.epa.gov/sites/production/files/2015-05/documents/firstamendment-dcwasa-cd.pdf [hereinafter DC Amended CD]

[30] 2015 Partial Consent Decree, at 27.

decree for the City of Lancaster requires that, in the event of a dry weather overflow, Lancaster must "begin corrective action immediately" and perform daily inspections until the overflow has been eliminated.[31]

b. Infrastructure Changes

At the heart of the changes needed in Harrisburg is a requirement to replace the dated sewage containment and conveyance systems that allow for continuing CSOs. Expending millions of dollars to only maintain the existing problematic system is not the best use of limited resources. The needed infrastructure changes can include several components, including adding pipe capacity and wastewater treatment plant capacity, constructing storage tanks to contain, rather than discharge, CSOs, and closing CSO outfalls. The specific requirements, with enforceable schedules and deadlines, must be incorporated into the final CD itself.

i. Separating Portions of Harrisburg's Stormwater and Sewage Systems

The most obvious solution to CSOs in Harrisburg would be to separate the stormwater and sewage systems, either as a whole or portions thereof, in various phases. Some cities have been able to nearly eliminate CSOs through ambitious projects to separate the majority of their combined sewer systems. For example, the City of Portland, Oregon, completed its Big Pipe Project in 2011, a 20-year, $1.4 billion effort to drastically reduce sewer overflows to the Willamette River and the Columbia Slough. The improvements eliminated 94% of combined sewer overflows to the Willamette River and 99% to the Columbia Slough and reduced CSO events from 50 per year to only 4 per year in the rainy season and one every 3 years in the dry season.[32]

Other consent decrees required nearby cities to separate portions of their combined sewer systems years ago. For example, in Washington, DC, a 2003 partial consent decree resulted in a number of CSO control measures being implemented that included the separation of previously combined stormwater and wastewater sewers in the Anacostia and Rock Creek sewersheds, which was already completed prior to the first amendment of that CD in 2015, and the 2015 DC Amended CD requires additional separations of CSSs and subsequent elimination of the formerly associated CSOs.[33]

In Harrisburg, separating the entire system all at once would be cost prohibitive, but some high-priority portions of the system should be separated, supplemented by other measures to reduce overflows such as building additional storage capacity to prevent overflows elsewhere in the system. Harrisburg's sewer system has several interceptors in its conveyance system; upgrading high-priority portions of the segments that have combined sewer systems to have separate sanitary and stormwater sewers could be phased over time depending on funding.

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[31] Lancaster CD, at 35, ¶ 42(c).
[32] City of Portland, Oregon, Combined Sewer Overflows (CSOs), https://www.portlandoregon.gov/bes/article/398740 (last accessed Feb. 10. 2020).
[33] *See* DC Amended CD, at 4, 19, 20.

ii. Measures to Increase Wastewater Treatment Plant and Pipe Capacity to Collect, Store, and Treat More Sewage Prior to Discharging

In addition to separating critical sections of the combined system, there are also many upgrades short of a complete bifurcation that Harrisburg should undertake to reduce frequency and/or flow volumes of CSOs, including constructing CSO storage tanks and/or tunnels and increasing treatment plant, pumping, and conveyance capacity and pipe size.

For example, the Williamsport CD required, within three years of the date the CD was signed, an overhaul of the CSOs and several upgrades and increases in system capacity to reduce or eliminate CSOs. These include: 1) plant modifications to allow the WWTP to achieve greater flow capacity, from 14 MGD to 21 MGD; 2) replacing the 12-inch pipe connecting one CSO regulator to an interceptor with an 18-inch pipe; 3) constructing an overflow wet well and pumping system to feed up to 25 MGD of wet weather overflow through new piping into a CSO tank; and 4) constructing a new 2 million gallon CSO storage tank for the peak wet weather over flow from the new pumping and piping systems.[34]

The Washington, DC sewage system upgrades required by the DC Amended CD include (in addition to separation of CSSs) construction of one storage/conveyance tunnel with a storage capacity of 105 million gallons to collect and convey combined sewerage from thirteen CSO outfalls, with the collected wastewater then conveyed to the treatment plant for treatment and discharge through an NPDES-permitted point source, construction of another storage/conveyance tunnel with a 157 million gallon capacity aimed at eliminating another three outfalls (except if needed for isolation/repair of the tunnel), and construction of another storage/conveyance tunnel with a 30 million gallon capacity aimed at storing and conveying the combined sewage currently discharging through four CSOs and conveying it to a treatment plant.[35]

iii. Closure/Elimination of CSOs

Requiring other infrastructure changes to reduce CSOs must be complemented by provisions in the final CD to require the identification and closure of individual CSOs that are found to be the most chronic sources of dischargers.

For example, the DC Amended CD resulted in the elimination of several CSO outfalls after the former combined sewage area tributaries were separated, and the DC Amended CD requires the construction of large storage/conveyance tunnels that will eliminate 16 CSO outfalls.[36]

[34] Williamsport CD, at 23–25, ¶ 21(e).
[35] DC Amended CD, at 15–19.
[36] DC Amended CD, at 15–17, 20.

iv. Green Infrastructure to Complement, but Not Replace, System Upgrades

Neighboring cities' CDs allow for green infrastructure projects (tree planting, etc.) as alternative or complementary measures for reducing CSO discharges but are not the primary means of reducing CSOs. The 2015 Partial Consent Decree proposes green infrastructure improvements as a primary means of reducing CSO discharges rather than an option for achieving additional reductions in addition to gray infrastructure changes. This approach ignores and de-prioritizes the critical gray infrastructure upgrades required to drastically reduce the flow of untreated sewage into waterways. The Williamsport CD requires infrastructure projects and does not mention green infrastructure.[37] The Lancaster CD does allow for green infrastructure measures to be included as it had already adopted a green infrastructure plan prior to lodging, but such measures were to be employed in addition to "Gray Infrastructure Control Measures" (e.g., construction of new infrastructure), and the Lancaster CD expressly requires that if the authority wanted to continue using green infrastructure measures, it could only do so subject to making required demonstrations that these green infrastructure measures would curb CSOs to the same extent as or better than gray infrastructure measures.[38]

The 2012 Scranton CD does require an evaluation of Green Infrastructure Measures (with an evaluation deadline of 5 years) and, like the 2015 Partial Consent Decree, allows the Authority, after the evaluation, to submit a modification to EPA and DEP to revise their LTCP to alter their CSO controls to incorporate Green Infrastructure measures.[39] However, the 2012 Scranton CD requires that a proposed modification request include the following detailed information:

> If the proposed modification seeks to alter the size of any CSO control in the LTCP, the proposed modification must also include reliable computer modeling and other evidence sufficient to demonstrate that (1) the proposed Green Infrastructure Measures will result in a reduction of wet weather flows into the Combined Sewer System; (2) during future wet weather events the SSA will continue to achieve such flow reductions; and (3) as a result of the flow reductions achieved as a result of the proposed Green Infrastructure Measures, the proposed modification of the LTCP will achieve the same or better performance, in terms of gallons controlled and the number of CSO activations in a typical year, as the unmodified LTCP.[40]

The final CD, should green infrastructure measures be incorporated as one approach to reducing overflows, must similarly require such measures to achieve and empirically demonstrate the same or better performance as gray infrastructure measures. Green Infrastructure can be a useful tool to reduce stormwater runoff, but it should be used in addition to—not in replacement of—sewage system improvements that are guaranteed and absolutely necessary to

[37] *See generally* Williamsport CD.
[38] Lancaster CD, at 31–32.
[39] Amended Scranton CD, at 12.
[40] *Id.* at 12–13.

halt or reduce the discharge of human waste into the Susquehanna River and the impaired Paxton Creek.

c. Limits on Combined Sewer Overflows or Requirements to Close Specific CSOs

Several CDs required more aggressive limits on CSOs. For example, the Scranton CD requires Scranton's LTCP to select a remedy for CSOs that will result in no more than 4 overflows/year to non-channelized tributaries of the Lackawanna River or its tributaries and no more than 9 overflows/year to the Lackawanna River and the channelized tributaries thereto.[41] The 2015 Partial Consent Decree for the city of Harrisburg has no requirements for the LTCP to limit the ultimate number of discharge events or volume of waste discharged from CSOs. The final CD must include this requirement.

d. Improved Monitoring Requirements

The final CD must include rigorous monitoring requirements to ensure that all required measures aimed at reducing CSO overflows and other discharges of sanitary wastewater are in fact effective. No matter what solutions DEP requires CRW to undertake in Harrisburg, it should also require bacteria monitoring in the Susquehanna River directly downstream and upstream of Harrisburg's CSOs to ensure that the fecal contamination problem is reduced over time and that the taxpayer dollars invested in this project are well-spent. If the testing does not show an improvement, then DEP and CRW should be required, as per the CD, to go back and figure out a more effective and timely way to solve the problem. Long-term monitoring must continue until all constituents of concern return to safe levels.

For example, the Scranton CD requires that the LTCP not simply just evaluate flow and devise a water quality monitoring plan, which the 2015 Partial Consent Decree for Harrisburg does,[42] but requires that the monitoring plan ensure compliance with EPA's 1994 CSO Policy and verify compliance with water quality standards, protection of designated uses, and the effectiveness of CSO controls. The Scranton CD states that the LTCP must:

> Include a post construction monitoring plan ("PCMP"), which must also meet the requirements of the CSO Policy, including the Policy's requirements that it be "adequate to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of the CSO controls" and that it "details the monitoring protocols to be followed, including the necessary effluent and ambient monitoring and, where appropriate, other monitoring protocols such as biological assessments, whole effluent toxicity testing, and sediment sampling.[43]

[41] Amended Scranton CD, at 15.
[42] 2015 Partial Consent Decree ¶¶ 15–17.
[43] Scranton CD, at 15.

e. Enforceable Deadlines Set Forth in the Consent Decree Itself

In addition to ensuring the final consent decree contains enforceable requirements for improving infrastructure that will decrease discharges of untreated wastewater, the consent decree must also be finalized quickly and contain hard, enforceable timelines for achieving infrastructure and pollution reduction benchmarks.

The 2015 Partial Consent Decree has very few concrete deadlines for construction projects. Most of the deadlines are tied to submittals of reports (such as the CSO Activation Monitoring Pilot ("CAMP") Study) or completion of schedules with open-ended deadlines.[44] The few requirements related to implementing construction projects mostly relate to deferred maintenance, such as identifying and repairing sinkholes within three years of lodging and completing high priority structural integrity changes to the Front Street Interceptor by a date certain.[45] In contrast, the other CDs we reviewed contain concrete, enforceable deadlines in the CD that drive compliance with the terms of the CD and ensure that the work will be timely completed, which also protects against project cost escalations that negatively impact ratepayers.

i. Ultimate deadline for implementation of Long-Term Control Plan

Although there are some deadlines for some limited construction projects in the 2015 Partial Consent Decree, the LTCP provisions of this CD do not include a deadline for implementation of the LTCP as a whole, which makes it weaker than other Consent Decrees, such as the Scranton and Lancaster CDs, which both require implementation of the updated LTCP within specified timelines.

The Williamsport CD, signed in June 2010, sets forth specific construction upgrades to control CSOs and requires that they be completed by June 30, 2013. The CD itself further requires that by November 2013 the authority be in full compliance with their NPDES permit and that all upgrades be operational.

Even the Lancaster CD requires that "[a]ll CSO Control Measures shall be constructed and commence operation as soon as possible, but in no event later than twenty (20) years after the date of lodging."[46]

ii. Deadlines to close specific CSOs

Any CSOs identified as targets for closure must be required to close by a date certain as other infrastructure improvements are implemented. For example, the DC Amended CD included, for each construction project required (such as construction of a tunnel), separate deadlines for awarding a contract for a detailed design, awarding a construction contract, and completing construction, after which the associated CSOs would be eliminated or closed by a date certain.[47]

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[44] 2015 Partial Consent Decree, at 49–50.
[45] *Id.* at 48.
[46] Lancaster CD, at 32, ¶ 35.
[47] *See, e.g.*, DC Amended CD at 16–22.

f. Penalties

DEP and EPA's 2015 Partial Consent Decree has not imposed penalties for the violations alleged in the Complaint, whereas all of the other CD's review imposed civil penalties. The Williamsport CD imposed a $320,000 penalty to be paid within 30 days of lodging,[48] the Lancaster CD imposed a $135,000 penalty to be paid within 30 days of the effective date,[49] and the original Scranton CD imposed a penalty of $170,000 plus interest, to be paid within 30 days of the effective date.[50] The 2003 partial consent decree for Washington DC that pre-dated the DC Amended CD imposed a $250,000 penalty and required an additional $2 million in expenditures for storm water pollution prevention projects, including $1.7 million for low impact development projects (*i.e.,* green infrastructure projects), and $300,000 for a green roof demonstration project.[51]

A final CD for the City of Harrisburg, following an appropriate ability to pay analysis as per EPA's Combined Sewer Final Overflows Guidance for Financial Capability Assessment and Schedule Development,[52] should assess a penalty that at a minimum recovers the economic benefit of noncompliance, including the time that has accrued since entering into the 2015 Partial Consent Decree However, the penalty owed could be mitigated by additional expenditures on system improvements, green infrastructure projects, or other pollution reduction projects to offset pollution from Harrisburg's sewer system.

As part of the civil penalty consideration, DEP and EPA should evaluate whether supplemental environmental projects to restore, protect, or clean up City Island Park Beach or other priority areas along the Susquehanna River and Paxton Creek could help offset the damage to the local ecosystem due to pathogens and other pollutants from the city's CSO problems. For example, the Lancaster CD includes a supplemental environmental project that would restore "1,350 linear feet of urban stream channel, reconnect wetlands to the Conestoga River, and establish additional habitat for micro- and macro-biota, thereby enhancing water quality," "improve water quality by reconnecting existing springs, seeps and local separate drainage to pocket wetlands and a restored natural stream channel," and "reduce localized flooding from unmanaged impervious areas by providing additional stream capacity and flow rate attenuation above the confluence of the Conestoga River." The Lancaster CD estimates the cost of the SEP to be between $1.8-$2.3 million, which offsets in part the civil penalty owed. The Lancaster CD requires completion of the SEP within 8 months of receipt of the last permit needed to complete the SEP.[53] EIP and LSRA are eager to explore potential options that could help offset the pollution caused by CRW's and the City of Harrisburg's chronic sewage overflows.

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[48] Williamsport CD, at 15.
[49] Lancaster CD, at 43.
[50] Scranton CD, at 20–21.
[51] U.S. Dep't. Justice, "Partial Settlement Reahed in Lawsuits as WASA Agrees to Steps to Reduce Sewage Overflow" (June 25, 2003), https://www.justice.gov/archive/opa/pr/2003/June/03_enrd_381.htm (accessed Feb. 10, 2020).
[52] Office of Water, EPA, Combined Sewer Final Overflows Guidance for Financial Capability Assessment and Schedule Development, Final (Feb. 1997), EPA Doc. No. EPA-832-B-97-004, *available at* https://www.epa.gov/sites/production/files/2015-10/documents/csofc_0.pdf.
[53] City of Lancaster CD, Appendix F, Supplemental Environmental Project.

Thank you for inviting our non-profit organizations to the table to discuss the terms we believe are of critical importance in a final consent decree. We look forward to meeting with you in March 2020 to discuss in more detail ways for your administration to revise and finalize an improved and complete Consent Decree to address ongoing discharges of untreated sewage in Harrisburg.

Sincerely,

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